

Claim Objections

1. Claim 56 corrected for antecedent
2. Claim 78 corrected for antecedent
3. Claim 80 corrected for antecedent
4. Claim 94 corrected for antecedent
- 4a. Claim 96 corrected for antecedent
6. Claim 107 corrected for antecedent
7. Claim 108 corrected for antecedent
8. Claim 111 corrected for antecedent
- 8a. Claim 112 corrected for antecedent
9. Claim 113 corrected for antecedent
10. Claim 115 corrected for antecedent
11. Claim 116 corrected for antecedent
12. Claim 117 corrected for antecedent
13. Claim 118 corrected for antecedent
14. Claim 119 corrected for antecedent
15. Claim 120 corrected for antecedent
16. Claim 122 corrected for antecedent
17. Claim 123 corrected for antecedent
18. Claim 124 corrected for antecedent
19. Claim 125 corrected for antecedent

Claim Rejections - 35 USC § 112

20. Claim 56 corrected for indefinite fault
21. Claim 115 corrected for indefinite fault
22. Claim 119 corrected for indefinite fault
23. Claim 120 corrected for indefinite fault
24. Claim 121 corrected for indefinite fault
25. Claim 122 corrected for indefinite fault
26. Claim 123 corrected for indefinite fault
27. *Claim 67, 70, 81, 111 are rejected under 35 USC 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connect, to make and/ or user the invention. The claimed input terminals, central computer, device at the remote location, and a target appliance. The claimed limitations are, instructions are, instructional information is inputted from the input terminal and forwarded to the central computer, device at the remote location, and further conveyed to the appliance. However, the current specification does not support such an information forwarding chain in sequence among the four difference units. See Fig. 6 on the current application.*

A review of paragraph [0004] of the Applicant's patent application gives a general overview of this subject matter, more specifically an Enhanced Automatic Router unit (EA-Router / unit) that is able to communicate with a central site to receive instructions from a

user. In paragraph [0005] there is teaching on a users contacting a central site to leave recording instructions. Paragraph [0006] shows the various types of input devices that can be used to access the central site: Internet access devices (a.k.a. computer terminals), phones, and faxes. Paragraph [0073] shows the processing of a request for recording a program on a media storage device located at a remote location. In paragraph [0074] the central computer generate a string of DTMF tones that will contain an access code and instructions for controlling a media-recording device located at a specific remote location. In paragraph [0075] the generated string of DTMF tones are forwarded to a device (EA-Router) located at the remote location. The EA-Router forwards the commands to the media-recording device (VCR), and initiates the recording process. The mode that the EA-Router can convey instructions to the recording device is indicated in Figure 2 and in paragraph [0102]. I am enclosing an additional flowchart (Figure # 7) that contains all of the above questioned upon material. To ensure no new material is added all citations were cut and pasted from the specification of the patent application. Proof of this is found in the section labeled "Proof That Figure 7 Is Not New Material". Claims 67, 70, 81, and 111 are allowable.

[0004] The present invention allows users to remotely set their media recording devices for programs that they want to see, event if no one is in the same location as the recording device. This is accomplished by accessing an enhanced automatic router unit that is in communication with any device that may recognize an incoming call (e.g., answering machine, modified caller ID box, etc.).

[0005] The present invention is part of a system/method that allows users to contact a central site and leave instructions for their media recording devices. In one embodiment, users may be signed up purchasers of registered remote units.

[0006] The remote user can contact the central site via any Internet accessing device, phone (wire/wireless), fax, etc. The user may then supply requested information to enable the central site to access and set the user's recording device. The enhanced automatic router (EA router) may be attached to a modified Caller ID Box, a phone line with a standard answering machine, a computer, a cable line, etc. The media recording device can be one of a variety of media storage devices including, but not limited to, tape (e.g., VCR), digital (e.g., TiVo), laser (write-able compact disk), etc.

[0073] In one embodiment, for example, a request may be placed on a Sunday, to record a program that is aired at 9:30 PM on channel 7 Sunday night. At the central site, where the request is logged in, the user's file is located and checked for validity. If valid, the user's EA router access code, and model number information are retrieved from the user's record. This information is used to generate a numeric string that encodes the command instructions that are required to effectuate the recording. Since each manufacturer may use different remote control codes/pulses for a given digit or command, each user must register the type, brand, and model of their recording device in order to ensure that the EA router 120A can function properly. Panasonic, RCA and Toshiba VCRs,

for example, may be encoded to start recording with a 123 cycle (c.p.s.) of duration 20 ms, 210 c.p.s. for 15 ms, and 30 c.p.s. for 50 ms, respectively. In this embodiment, pulses refer to the number of impulse (light/electrical) to be generated in one second. This difference in command coding makes it necessary for each user to register the make and model of their recording device.

[0074] In one embodiment, the central site validates the user's identity and collects information regarding the program the user wants to record: day of recording, time of the recording, channel from which to record the program. The central site then generates a string of DTMF tones that encodes the user's access code, channel from which the recording is to be made, the commands to activate the VCR, the commands for rewinding the tape, and the commands for start recording.

[0075] EA router 120A, in this embodiment, recognizes that the central site sends a string of DTMF tones in a predetermined format. This allows the EA router 120A to convert the captured DTMF tone sequence into a numeric string that can be segmented into both remote control command codes and access codes. The access codes allows the EA router 120A to recognize that the instructions come from an authorized VCR user. The command codes allows the EA router 120A to turn on the VCR, rewind the tape in the VCR, select the channel to record and then start recording.

[0102] It should be noted that the example above describes accessing a media recording device by a user over a telephone line. It should be noted that many other types of communication networks

may be used including, but not limited to, the internet, cable networks, wireless networks, etc. Further, although the example above describes an infrared emitter 192 accessing a media recording device, the emitter 192 may be replaced with another type of emitter (i.e., infrared, ultra-violet, RF, electrical signals, blue tooth technology) and the activated device may be any device that can receive such a signal.

27. *Claim 100, is rejected under USC 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The phrase "the processor with the targeted appliance ... processing electrical pulse that encode instruction" is not supported by the specifications. The limitation is interpreted as the "processor processes electrical pulse and encode instruction". The specification does not support that the processor with the appliance encode the instructions.*

Claim 100 corrected to reflect what is stated in the specifications of the patent application.

29. *Claim 111, 112 are rejected under USC 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The phrase "time delayed instructions" is not supported by the specification. There is no definition in the current specification regarding this claim limitation. The phase "validating and processing incoming instruction is not supported by*

the specifications. The current specification does not support validating content of the incoming instructions.

In paragraph [0081], the Applicant's patent application teaches how to encode instructions for controlling an appliance with a temporal component that indicates when the instructions will be implemented: minutes, hours, days. The temporal component taught by the Applicant's patent application is an indicated time in the future when the code is to be employed. This allows the instructions for controlling a targeted appliance to be issued in advance of when the said instructions are to be used [0086 - Position Table & 0087-Content Table]. The ability of the Applicant's patent application to handle inputted instructions hours or days in advance of there being acted on (executed) by the targeted appliance at a remote location clearly teaches on "time delayed instructions". Paragraph [0073] shows a "time delayed instructions" process in the Applicant's patent specification. Paragraph [0073] shows that after instructions are received at the central site they are processed before being forwarded to the targeted appliance at a remote location. In paragraph [0081] the specifications of the Applicant's patent application teaches to encode instructions that will tell the media-recording device to start recording at some time in the future: days, hours, or minutes (see "Code Key Translation"). In paragraph [0075], the incoming information from the central computer contains an access code that is checked by the EA-Router to ensure that the incoming instructions are valid for the remote location. This feature ensures that by accident no user recording device records something that is not authorized. Claim 111 and 112 are allowable.

[0073] In one embodiment, for example, a request may be placed on a Sunday, to record a program that is aired at 9:30 PM on channel 7 Sunday night. At the central site, where the request is logged in, the user's file is located and checked for validity. If valid, the user's EA router access code, and model number information are retrieved from the user's record. This information is used to generate a numeric string that encodes the command instructions that are required to effectuate the recording. Since each manufacturer may use different remote control codes/pulses for a given digit or command, each user must register the type, brand, and model of their recording device in order to ensure that the EA router 120A can function properly. Panasonic, RCA and Toshiba VCRs, for example, may be encoded to start recording with a 123 cycle (c.p.s.) of duration 20 ms, 210 c.p.s. for 15 ms, and 30 c.p.s. for 50 ms, respectively. In this embodiment, pulses refer to the number of impulse (light/electrical) to be generated in one second. This difference in command coding makes it necessary for each user to register the make and model of their recording device.

[0075] EA router 120A, in this embodiment, recognizes that the central site sends a string of DTMF tones in a predetermined format. This allows the EA router 120A to convert the captured DTMF tone sequence into a numeric string that can be segmented into both remote control command codes and access codes. The access codes allows the EA router 120A to recognize that the instructions come from an authorized VCR user. The command codes allows the EA router 120A to turn on the VCR, rewind the tape in the VCR, select the channel to record and then start recording.

[0081] The following are tables of codes that may be used in accordance with one embodiment.

2 Code Key Translation 0 If the recording is to be made on the same day as the entry is made into the central site 1 Recording is to be made on Sunday 2 Recording is to be made on Monday 3 Recording is to be made on Tuesday 4 Recording is to be made on Wednesday 5 Recording is to be made on Thursday 6 Recording is to be made on Friday 7 Recording is to be made on Saturday 1 Mono-tonal code generation format, instruction codes for controlling the recording device may be generated by the EA router combining the number of impulses and a duration of the impulses. 2 Dual tonal code generation format, instruction codes for controlling the recording device may be generated by combining two different tones to generate a unique new tone (DTMF). 0000 The start of the day at midnight .vertline. 1200 Twelve noon .vertline. 1300 One in the afternoon .vertline. 2359 One minute before midnight .vertline. 001 The channel can range from 1 to 999, channel 7 .vertline. is 007. 999 ABCD The number of cycles per second to instruct the recording device to turn on. EFGH The duration of which the pulses should be transmitted to activate the recording device. Both ABCD & EFGH may be require to mimic the Remote control activation of the recording device. PQRS The number of cycles per second to instruct the recording device to start recording. TUVW The duration of which the pulses should be transmitted to start recording.

[0086] In one embodiment, the above numeric string of digits may be converted into a string of DTMF tones. A DTMF encoder converts each digit into a distinct DTMF tone. The DTMF tone is transmitted to

the EA router 120A. The EA router 120A then converts the DTMF tones back into digits that can be translated into instructions, access code information and an end of data flag. 3 POSITION TABLE

123456789DFTTTT ABCD EFGH ANMY RETW PQRS TUVW # Segment Contents

Position 123456789 Access Code (1-9) D Day Of Recording (10) F

Format To Use In Creating Control Codes (11) TTTT Time Of Day To

Start Recording (12-15) 9999 Number Of Pulses In Channel Select

(16-19) Command 8888 Duration Of The Channel Command (20-23) ABCD

Number Of Pulses In VCR Activate (27-31) Command EFGH Duration Of

The Activate Command (32-35) ANMY Number Of Pulses In VCR Rewind

(36-39) Command RETW Duration Of The Rewind Command (40-43) PQRS

Number Of Pulses In VCR Record (44-47) Command TUVW Duration Of The

Record Command (48-51) # End Of Data Flag Always Last

[0087] 4 CONTENT TABLE 123456789012130013400200020005001700-
02001500020# What It Segment Contents Contains 123456789 Access
Code 123456789 0 Day Of Recording Today 1 Mono Tone Format Single
Tone 2130 Time Of Day To Start Recording 9:30 PM 0134 Number Of
Pulses In Channel 7 Command 134 pulses 0020 Duration Of The Channel
Command 20 ms 0020 Number Of Pulses In VCR Activate 20 pulses
Command 0050 Duration Of The Activate Command 50 ms 0170 Number Of
Pulses In VCR Rewind 170 pulses Command 0020 Duration Of The Rewind
Command 20 ms 0150 Number Of Pulses In VCR Record 150 pulses
Command 0020 Duration Of The Record Command 20 ms # End Of Data
Flag #

30. *Claim 123 is rejected under USC 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The phrase "a mean for the server to determine when action should be taken on the information (line 5) is not supported by the specification. The current specification does not support "server determining when action should be taken"*

In paragraph [0076] of the Applicant's patent specifications it is shown that the server has flexibility in determining when to send out the instruction to the EA-Router located at a remote location. Claim 123 is allowable.

[0076] In this embodiment, the central site sends the code out anywhere from 5 to 10 minutes before the desired recording time. This reduces the size and amount of coding required to be sent. In another embodiment, the string of DTMF tones sent to the EA router 120A contains coding information for selecting date and time. In other embodiments, the central site may allow interaction with the user's device directly.

Claim Rejections - 35 USC § 102

31. *Claim 56, 57, 59, 60, 61 62, 63, 65, 66, 67, 68, 69,70, 71, 72, 73, 74,76, 77, 78, 79, 80, 81, 82, 83, 84,86, 87, 91, 94, 96, 100, 107, 108, 111, 113, 116, 117, 120, 121, 123,124, and 84 are rejected under 35 U.S.C. 102(b) as being anticipated by Noonan et al (US: 5,761,280).*

Regarding claims 56, 67, 78, 81, 91, 94, 96, 108, 111, 113, 116, 117, 120, 123, Noonen et al teach on item 10 Fig. 1, interface (claimed "central computer").

The interfacing cited in the prior art (Noonen et al US: 5,761,280) is totally difference from that of the Applicant's invention. Noonen et al's patent teaches on interfacing with a central server that host websites. Noonen et al's patented interface (DTMF-PSTN interface) allows the end user to navigate on a computer screen enabling the user to click on visual object, similar to that of a mouse. Navigation is affected by DTMF-tones entering the interface device and being converted into instruction that will move a GUI object about on a screen (Col. 2, line 58 – 65). The Applicant's interaction with a central computer is that of processing information and passing it on to a targeted appliance located at a specific location: a phone (Figure 1, item 24) and a visual display unit with memory that contain software for web browsing and special code (Figure 8 and Col. 5, line 52 - 67).

FIG. 8 is a flowchart illustrating the steps performed by interface 10 in executing a Web browser command. **Decision diamonds 60-66 represent the interface 10 identifying the Web browser command and responding accordingly.** It is noted that the order in which the interface 10 identifies a response to the Web browser commands is provided by way of example and not limitation.

Decision diamond 60 represents the interface 10 determining whether it received a request to move the pointer. If so, **block 68 represents interface 10 moving the pointer on the display 30 accordingly.**

Decision diamond 62 represents the interface 10 determining whether

it received a request for a previously added menu. If so, **control moves to block 70 where the interpretation protocol of the converter module 22 (and thereby the functions of the key pads) is changed.**

The interface device contains a web browser and codes for converting a Specific DTMF-tone into a macro containing instructions to control a GUI object on the interface screen: enabling the 0 – 9 digits of the keypad to act as a substitute for a mouse (Figure 2 and Col. 3, line 8 – 18 & Figure 3, line 19 – 42).

FIGS. 2 and 3 illustrate exemplary interpretation protocols of the converter software module 22. In FIG. 2, an interpretation protocol of the telephone key pad 25 for maneuvering the pointer about the GUI of Web browser 20 is depicted. The DTMF tones associated with key pads numbered 1-9 correspond to various directional movements of the GUI pointer as shown in FIG. 2. The "0" (zero) key pad may be used to execute or select a function associated with an icon to which the pointer is pointing. The "*" and "#" key pads may be used to change the protocol conversion thereby generating a different menu assignment.

FIG. 3 is another exemplary illustration of a interpretation protocol. For example, the protocol interpretation illustrated in connection with FIG. 3 may be an interpretation protocol resulting from a depression of the "*" key pad under the protocol illustrated in the previous Figure. Furthermore, in the protocol of FIG. 3, the DTMF tones associated with the keys numbered 1-9 correspond to various pull down menus associated with Web browser 20. The "0"

(zero), "*", and "#" key pads correspond to additional menus and thus may also be used to change the protocol conversion. In this manner, the key pad of a telephone circuit provides input for interacting with the Web browser 20. In accordance with an aspect of the invention, a telephone coupled with a display via the interface 10, may become an internet browser. In accordance with one embodiment of the invention, described more fully below, the internet browser is integrated with video phone circuitry which is also controlled using the telephone keypad to generate DTMF signals. In the combination Web browser/video phone, the core elements of the system (e.g., the processing unit, memory, display circuitry, etc.) may be used to accomplish multiple functions, thereby greatly increasing the functionality of the system without significantly increasing the costs.

Noonen et al's "Interfacing of a Keypad" with a computer to communicate over a PSTN using DTMF-tones is simply a macro-encoding feat; it has nothing to do with controlling a targeted appliance at a remote location. If Examiner is making the argument that control of activities on a central server via DTMF-tones in any form over a communication network teaches on the Noonen et al's invention, then all patents involving control using DTMT-tones communicated to a central server over a communication network would fall under Noonen et al's patent. If this were the case then Noonen et al's patent should have been anticipatory to Walsh et al (US: 6,144,848) invention. More to the point, the Applicant's patent teaches on re-transmitting information from a central server to a remote location, where said information will act as instructions to control the future behavior of a targeted appliance located at said remote site. In the Applicant's invention a

central server can collect and store information transmitted in DTMF-tone, Verbal, and Fax format from input terminals (Paragraph [0015]). Noonen et al's invention teaches only on input only from a DTMF-tone source via DTMF-PSTN interface. In Noonen et al's invention teaches only on memory for storage being in the interface device (Figure 1, item 18 and Col. 2, line 47 - 50 & Col. 5, line 3 - 12). Noonen et al's interface is primarily involved in controlling a GUI object that acts as a mouse, allowing the user to display information and navigate the Internet. There is no teaching in Noonen et al's patent on processing the input from the interface device to derive information, nor is there mention of forwarding the derived information to another site for the purpose of controlling a targeted device.

FIG. 7 is a flowchart illustrating in greater detail the general flow performed by an exemplary interface 10 in implementing an internet browser in accordance with an embodiment of the present invention. Block 40 represents interface 10 generating a dial tone for output by the speaker of telephone 24. The dial tone may be simulated or otherwise controlled to allow the interface 10 to recognize and implement DTMF control signal input using the telephone keypad. Block 42 represents interface 10 receiving a DTMF code from the keypad of a telephone. The DTMF code is stored in the memory 18 of interface 10.

Processor 12 is further coupled to a memory 18. Under control of the processor 12, software modules, such as a DTMF converter module 22 and a Web browser 20, may be loaded from a data storage device into memory 18 of the interface 10 for use during actual

operations. Typical Web browsers which may be executed on the interface 10 include IBM's Net Explorer, NetScape and Mosaic. As is appreciated by those skilled in the art, Web browser 20 may be connected via communications component 16 and PSTN to a Web server executing a Web daemon such as IBM's HTTP daemon or other WWW daemon.

[0015] FIG. 1 shows one embodiment of a system incorporating the present invention. In this embodiment, the system includes telephones or user interface devices 110 and 110'. Although the interface user device, in one embodiment, **is a telephone, in an alternate embodiment, user interface devices 110 and 110' may be a facsimile, computer, online access device, voice response unit or the like.** It should be noted that although references are made herein to telephones and user interface devices, these terms are used interchangeably and may include the other user interface devices listed above, as well as those that are not listed herein, that utilize telephony services to effectuate communication over network 100. It should be noted that the difference between user interface devices 110 and 110' is the devices' connection with automatic router 120 which is described in detail below (i.e., 110' denotes that the device is connected to router 120, while 110 has no such router 120 connected to it).

The type of interfacing performed by the Applicant's invention is clearly difference from that of the cited prior art of Noonan et al.'s invention. The Applicant's invention teaches on interfacing that involves passing information to a central server, processing and storing said information, and then forwarding the process information to a remote site.

Noonen et al's patent only control a cursor on a screen enabling the user to access and navigate a website on a remote central server (Figure 2 and Col. 3, line 8 – 18 & Figure 3, line 19 – 42). There is no teaching on control a device at a location remote to that of the central server (Figure 1 & Col. 2, line 27 - 46). In Noonen et al's patent all control relating to interfacing the DTMF tone generator with a communication network in are confined to performing mouse like activities on a screen linked to a central computer (Figure 1 & Col. 2, line 27 - 46). The mouse like control gained by using Noonen et al's patent is real-time control, the user views the material they want to control via a display screen that is linked to a central server (Figure 1 & Col. 2, line 27 - 46). In the Applicant's invention, the DTMF tones convey/encode information that is used to control a specific device at a remote location to that of the central computer. The user of the Applicant's invention does not control their targeted device in real time, and said device is not located at the site of the central server. In the Applicant's invention, the user can dial a phone number and access a server that will collect information in the form of a fax, verbal commands, or DTMF-tones. At no time are the DTMF-tones in the Applicant's invention performing mouse like activities on a screen in real time.

FIG. 1 is a block diagram which illustrates an exemplary interface 10 for browsing the internet using a telephone 24 having a key pad/DTMF-PSTN circuit 25 with keys for generating DTMF codes. Interface 10 includes a processor 12, such as a reduced instruction-set computing (RISC) chip, coupled to a display circuit 14 and a communication component 16. Communication component 16 includes hardware along with supporting firmware and/or software, and is included on interface 10 to provide an interface with a

communication network, such as a public switched telephone network (PSTN), the internet, local area networks, and/or wide area networks. Display circuit 14 includes hardware along with supporting firmware and/or software and is included to provide an interface with a display 30. Display 30 may be any type of display such as a television or computer monitor, an LCD display integrated directly into phone, and the like. The display circuit 14 may be, for example, a video card or other circuit suitable for the type of display used.

The Web browser 20 typically provides a graphical user interface (GUI) having a pointer which may be maneuvered about a screen to select various graphical icons to invoke a features of the Web browser 20. The graphical icons may represent, for example, hyperlinks to various uniform resource locators (URL) or pull down menus, such as a file menu or a bookmark menu, for interfacing with the internet and/or the Web browser 20.

Noonen et al teach on items 28, 25 Fig. 1 Fig. 5, Column 3 line 12 – 13, a keypad with a plurality of keys (Claimed “a plurality of remote data entry points”) associating with number 0 – 9 (claimed “a plurality of remote data entry modes”).

In Figure 1, items 25 and 28 are components of a telephone (Col. 2, line 27 – 31). They link to a device (Figure 1, item 10) that response to DTMF-tones forwarded from a telephone (Figure 1, item 24) via a connection between the two indicated items. The memory of the interface is able to initiate web browsing / surfing upon detecting a specific DTMF-tone (Figure 7 item 44 and Col. 5, line 13 – 23 and Col. 5 line 24 - 37).

Decision diamond 44 represents the interface 10 determining whether the received DTMF code represents a request to execute Web browser 20 and access the Web. For example, in the embodiment of FIG. 6, this code would correspond to "#W". Step 44 compares the DTMF code to a variable stored in the memory 18 of the interface. In another embodiment, the variable and DTMF code for accessing the Web may be, for example, the telephone number of a local access provider such that when the local access provider is dialed the internet browser is automatically initiated.

If the received DTMF code does not represent a request to execute Web browser 20 for accessing the Web, control may move to block 58 where the interface seizes the communications network line or PSTN line and dials, for example, the telephone number associated with the DTMF code of block 42. Otherwise, as indicated by block 46, interface 10 loads Web browser 20 into memory 18.

Following block 46, interface 10 seizes the communications network or PSTN line and dials a number for accessing the internet, for example, a number for the local internet access provider. The telephone number of the access provider may be stored in memory 18 and may be the DTMF code received at block 42.

In Fig. 5, Column 3 line 12 – 13, refer to encode directions for moving a cursor on a viewing screen (Col. 3 line 8 – 19).

FIGS. 2 and 3 illustrate exemplary interpretation protocols of the converter software module 22. In FIG. 2, **an interpretation protocol**

of the telephone key pad 25 for maneuvering the pointer about the GUI of Web browser 20 is depicted. The DTMF tones associated with key pads numbered 1-9 correspond to various directional movements of the GUI pointer as shown in FIG. 2. The "0" (zero) key pad may be used to execute or select a function associated with an icon to which the pointer is pointing. The "*" and "#" key pads may be used to change the protocol conversion thereby generating a different menu assignment.

The Applicant's teachings on "a plurality of remote data entry points" refers to the fact that input to a central server can come from any input terminal able to communicate with the central server. The 0- 9 cited by the examiner correspond to various directional movements of the GUI pointer (Col. 3 line 8 – 19). There is no correlation between 0-9 numbers of Noonan et al's patent and the teaching of the Applicant's patent on plurality of input terminals.

The Applicant's teachings on "a plurality of remote data entry modes" refers to the fact that information/instructions to a central server can come in a wide variety of forms: voice, DTMF-Tones, Electronic Signal (Mono-Tone), and Fax. Noonan et al's patent does not teach on Voice, DTMF-tones, Mono-tones, or Fax input to convey instructional information to a site remote to the central server. There is no mention in Noonan et al about a site remote to the central server.

Noonan et al teach on column 5 line 11 – 13, the interface receives DTMF code and stores in the memory (claimed "a central computer able to process and store instructions").

In the Applicant's invention the central processor is remote to the instruction input terminal, and the input terminal does not process and store information. The input terminal in the Applicant's invention passes the information on to a central processor. In Noonen et al's invention the Interface is next to or part of the telephone that the user uses to input instructions (Figure 1 and Col. 2, line 27 - 46).

Noonen et al teach on column 5 line 39 – 39, the interface establishes a connection with an internet site (read on claims "instructions are authorized to be accepted and forwarded"). In other words, if instructions are not authorized to be accepted and forwarded, connection is not established.

Citation given does not indicate that authorization is required for accessing the web site in Noonen et al's patent. In fact most cites on the web do not require an access code / authorization to visit them. In so much that Noonen et al's patent is intended to act as a mouse, and assist the user in moving about, making selection, and opening things on the web, there is no need for password restricted access. In the Applicant's invention, there is password restricted access at both the central server and the remote location. This is not taught in Noonen et al's patent (Col. 5, line 13 - 31).

Decision diamond 44 represents the interface 10 determining whether the received DTMF code represents a request to execute Web browser 20 and access the Web. For example, in the embodiment of FIG. 6, this code would correspond to "#W". Step 44 compares the DTMF code to a variable stored in the memory 18 of the interface. In another embodiment, the variable and DTMF code for accessing the Web may be, for example, the telephone number of a local access

provider such that when the local access provider is dialed the internet browser is automatically initiated.

If the received DTMF code does not represent a request to execute Web browser 20 for accessing the Web, control may move to block 58 where the interface seizes the communications network line or PSTN line and dials, for example, the telephone number associated with the DTMF code of block 42. Otherwise, as indicated by block 46, interface 10 loads Web browser 20 into memory 18.

Following block 46, interface 10 seizes the communications network or PSTN line and dials a number for accessing the internet, for example, a number for the local internet access provider. The telephone number of the access provider may be stored in memory 18 and may be the DTMF code received at block 42.

Noonen et al teach on column 6 line 3-4, communicating with the URL (reads on claimed "remote location and target device").

In the Applicant's invention the remote input terminal sends information to a central server. The central server in turn process and forwards the information to a remote location indicated by the information inputted at the input terminal. At the remote location the received information is relayed to a targeted device that will alter it behavior in accordance with the received information. Noonen et al's patent does not teach on the central server forwarding instructions from the user to a previously added remote location. The instruction from transmitted by Noonen et al's invention works only on the central

server that is part of the web, on which it has established a link and is currently surfing/browsing. At no point ever in Noonen et al's patent is it mentioned that instructions will be relayed to a previously added location and effect the behavior of a targeted device at that location.

Noonen et al teach on column 6 line 3 – 7, graphical data received from URL base on hyperlink (the hyperlink/instruction control which URL content to be provide; claimed "instructions will control said device future behavior").

Noonen et al's patent does not teach on, or involve controlling a device future behavior, it works in real time. After all what is the purpose of a web browser that has a delay action component, no one want to click on something and have to wait for the click to be acted on. That is why we have developed high speed Internet access, so we don't have to wait. Noonen et al's patent operates in real time like a mouse on a computer screen. If you break the connection between Noonen et al's invention and the web site it was surfing / browsing, it previous visitation will not have an effect on said web site or the data being viewed (Col. 6, line 1 – 7). Once the connection is broken, all is lost and nothing outside of the user location is changed. Noonen et al's patent also does not affect anything at a site remote to both the user and the central server. The Applicant's invention instructions will effect the behavior of a device located at a cite remote to both the input terminal and the central server. This change affected by the Applicant's invention will occur at some time in the future from when the instructions were entered into the input terminal, and after the connection to the central server is severed. The Hyperlink in Noonen et al's patent is just a way for an Internet user to go from one web site to another. There is no controlling of the Hyperlink destination website from the current website. The

user is move from one location to another, and can not control something over the hyperlink at another web site from the old website. Even if the user could control something at the Hyperlink destination website from their current website, the control would still be in real time, and all effect resulting from the instructions passed to the Hyperlink destination site would be in real time too.

Decision diamond 64 represents interface 10 determining whether it received a request selecting a hyperlink. If so, block 72 represents interface 10 communicating with the URL associated with the hyperlinked item. This step includes establishing a connection with the particular URL and typically displaying graphical data received from the URL on the display 30.

Claims 56, 67, 78, 81, 91, 94, 96, 108, 111, 113, 116, 117, 120, and 123 are allowable.

Claim 57 and 58 are allowable as being dependent from an allowable claim

Claim 68 and 69 are allowable as being dependent from an allowable claim

Claim 79 and 80 are allowable as being dependent from an allowable claim

Claim 82, 83, 84, 85, 86, and 87 are allowable as being dependent from an allowable claim

Regarding claims 57, 68, 79, 107, Noonen et al teach on column 3, line 6 – 7, protocol for translating DTMF tone.

Noonen et al's patent teaches on assigning instruction coding to each DTMF-tone, enabling the user to press a given DTMF-tone and get a certain type of movement of a GUI object on a screen (i.e. Mouse). When the occasion calls for it, the code associated with a given DTMF-tone can be changed, thus what use to code for move right can code for open drop down menu (Figure 2 & 3, line 8 - 42).

FIGS. 2 and 3 illustrate exemplary interpretation protocols of the converter software module 22. In FIG. 2, an interpretation protocol of the telephone key pad 25 for maneuvering the pointer about the GUI of Web browser 20 is depicted. The DTMF tones associated with key pads numbered 1-9 correspond to various directional movements of the GUI pointer as shown in FIG. 2. The "0" (zero) key pad may be used to execute or select a function associated with an icon to which the pointer is pointing. The "*" and "#" key pads may be used to change the protocol conversion thereby generating a different menu assignment.

FIG. 3 is another exemplary illustration of a interpretation protocol. For example, the protocol interpretation illustrated in connection with FIG. 3 may be an interpretation protocol resulting from a depression of the "*" key pad under the protocol illustrated in the previous Figure. Furthermore, in the protocol of FIG. 3, the DTMF tones associated with the keys numbered 1-9 correspond to various pull down menus associated with Web browser 20. The "0" (zero), "*", and "#" key pads correspond to additional menus and thus may also be used to change the protocol conversion. In this manner, the key pad of a telephone circuit provides input for interacting with the Web browser 20. In accordance with an aspect of the invention, a telephone coupled with a display via the interface 10, may become an internet browser. In accordance with one embodiment of the invention, described more fully below, the internet browser is integrated with video phone circuitry which is also controlled using the telephone keypad to generate DTMF signals. In the combination Web browser/video phone, the core elements of the system (e.g., the processing unit, memory, display

circuitry, etc.) may be used to accomplish multiple functions, thereby greatly increasing the functionality of the system without significantly increasing the costs.

The Applicant's invention differs from that of the prior art of Noonan et al, in that the specific value of a given DTMF-tone is not change, rather the sequence in which the DTMF-tone appear will change the encoded information. Claims 57, 68, 79, 107 are allowable.

Regarding claim 58, 69, 80, 100, 124, Noonan et al teach on Fig. 2, Fig. 3 order of DTMF tones and associate generated instructional coding.

FIGS. 2 and 3 illustrate exemplary interpretation protocols of the converter software module 22. In FIG. 2, an interpretation protocol of the telephone key pad 25 for maneuvering the pointer about the GUI of Web browser 20 is depicted. The DTMF tones associated with key pads numbered 1-9 correspond to various directional movements of the GUI pointer as shown in FIG. 2. The "0" (zero) key pad may be used to execute or select a function associated with an icon to which the pointer is pointing. The "*" and "#" key pads may be used to change the protocol conversion thereby generating a different menu assignment.

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In the above cited specification from Noonan et al's patent, it is shown that the teaching are for assigning instruction coding to each DTMF-tone, enabling the user to press a given DTMF-tone and get a certain type of movement of a GUI object on a screen (i.e. Mouse Like Behavior In Real Time). When the occasion calls for it, the code associated with a given DTMF-tone can be changed, thus what use to code for move right can code for open drop down menu (Figure 2 & 3, line 8 - 42). The words "Order" and "Sequence" does not even appear in the prior art of Noonan et al (US 5,761,280). Claims 58, 69, 80, 100, 124 are allowable.

Regarding claims 59, 60, 61, 62, 70, 72, 73, 83, rejection as stated in claim 56 above apply.

Noonen et al teach on item 24 Fig. 4, Fig. 5, a telephone (claimed "a remote data entry terminal")

Noonen et al's patent does not teach on remote data entry terminals, all mention of memory for storing information is limited to the interface (Figure 1 and Col. 2, line 47 – 57 & Col. 5, line 11 - 12). There is no mention of passing information to a central server for processing or storage in the prior art patent Noonen et al (US 5,761,280). Noonen et al's patent deals with sending instructional codes that manipulate a GUI object on a screen at a central server. The instructional information is not saved or process in any meaningful manner, because there is no inherent value in retaining the received information once it reaches the website and effects the GUI object (Col. 2, line 47 – 65 and Col. 3, line 8 - 18). Noonen et al's patent teaches on navigating a website or the Internet, there is no teaching of entering data that has intrinsic value.

Claims 59, 60, 61, 62, 70, 72, 73, and 83 are allowable.

Regarding claims 63, 74, 84, Noonen et al teach on column 2 line 28, internet.

In the cited prior art Noonen et al's patent, the interface is able to surf the Internet using a web browser. The DTMF-tones digits 0 – 9 are used to trigger the transmission of coding that will control the movement of a GUI object, allowing the user to navigate on the World Wide Web (Col. 3, line 12 - 18). The DTMF-tone travel from the phone/keypad to the interface device, where the tone are replaced with codes that are used to navigate the

GUI object on the Internet (Col. 2 & 3, line 66 – 7). The DTMF-tones never leave the user's location, they are converted into instruction coding by the DTMF-converter (Figure , item 22). In the Applicant's invention, the DTMF-tones are user to encode information that can transmit over a communication network such as the World Wide Web (WWW). The role of the WWW in prior art of Noonen et al's patent is different from that of the Applicant's invention. Significant differences between the cited prior Art (Noonen et al US: 5,761,280) and the Applicant's invention is that Noonen et al's invention can not function without the Internet, and the Applicant's invention can work using only a PSTN. Claims 63, 74, and 84 are allowable.

Regarding claim 65,76,86, the DTMF tones are audio signals.

The Applicant's patent teaches on a device at the remote site converting said DTMF tones received from the central computer into audio signals containing instructions that will control the behavior of the targeted appliance. Noonen et al's patent fails to teach on any kind of activities at a site remote to both the input terminal (Interface-DTMF keypad) and the central server. Noonen et al's patent only teaches on communicating with a central server on the Internet by wire: PSTN-DTMF (Figure 1 and Col. 2, line 28 – 46). In Noonen et al's patent DTMF-tones never leave the user location or travel externally to the interface device. Rather the DTMF-tones generated are converted (DTMF converter) in the interface device into code that will control a GUI object on a screen (Figure 1 item 22 and Col. 2 & 3, line 66 – 8). In one embodiment of the Applicant's invention DTMF-tones travel from the EA-Router to a targeted appliance, as a form of encoded instructions.

Noonen et al's patent can not be anticipatory to the Applicant's invention because it lacks the teaching shown in Applicant's patent's application. Claims 65, 76, 86 are allowable.

Regarding claims 66, 77, 82, 87, 121, the DTMF-tones are electrical signals for transmission. There must be a cable (wiring) for DTMF- signal transmission.

Only in the Applicant's patent application is there teaching of connecting an EA-Router to a targeted device at a location remote to both the input terminal and the central processor. Noonen et al's patent only teaches on communicating with a central server on the internet by wire: PSTN-DTMF (Figure 1 and Col. 2, line 28 – 46). In Noonen et al's patent DTMF-tones never leave the user location, rather they are converted (DTMF converter) in the interface device into code that will control a GUI object (Figure 1 item 22 and Col. 2 & 3, line 66 – 8). Since Noonen et al does not teach on either having an the central server forward information/instructions from an input terminal to a remote location (see Illustration 1,2,3 and accompanying description), nor dose it teach on a relaying the instructions received at a remote location to a targeted device by Infra-Red, Audio, or Electrical connection. Noonen et al's patent can not be said to anticipate the Applicant's invention. Claims 66, 77, 82, 87, and 121 are allowable.

FIG. 1 is a block diagram which illustrates an exemplary interface 10 for browsing the internet using a telephone 24 having a key pad/DTMF-PSTN circuit 25 with keys for generating DTMF codes. Interface 10 includes a processor 12, such as a reduced instruction-set computing (RISC) chip, coupled to a display circuit 14 and a communication component 16. Communication component 16 includes hardware along with supporting firmware and/or software,

and is included on interface 10 to provide an interface with a communication network, such as a public switched telephone network (PSTN), the internet, local area networks, and/or wide area networks. Display circuit 14 includes hardware along with supporting firmware and/or software and is included to provide an interface with a display 30. Display 30 may be any type of display such as a television or computer monitor, an LCD display integrated directly into phone, and the like. The display circuit 14 may be, for example, a video card or other circuit suitable for the type of display used.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 USC 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

32. *Claims 64, 75, and 85 are rejected under USC 35 103(a) as being unpatentable as applied to claim 60 above, and in view of Irie (JP: 410,126,494).*

Noonen et al failed to teach "converting ... said incoming instructions", However, Irie teaches on SOLUTION – converting DTMF command signals to Infrared signals by a telephone set.

It would have been obvious to one skilled at the time the invention was made to modify Noonen et al to have "converting said...incoming instructions" as taught by Irie such that the modified system of Noonen et al would be able to support the converting DTMF to IR to the system user."

A person skilled at the time the invention making modifications to Noonen et al's patent to have "converting said DTMF-tones into Infra-Red signals" as taught by Irie

would neither anticipate, nor make obvious the Applicant's invention. The enhanced Noonen et al's patent (A.K.A. **Enhance Patent**) would still lack teaching on time delay transmission of instruction from a server to a remote location. The Enhance Patent would also be lacking in teaching how a device at the remote location is able to accept and verify that the incoming instructions are to be accepted and relayed to a targeted appliance. Being that Noonen et al's patent fails to teach on transmitting instructions from a server to a remote location, fails to teach on time delayed transmission, and fails to teach of verification of authorization to control a remote location appliance, Anticipation fails. The Enhanced Patent (Noonen et al's & Irie's inventions) still fails to make Obvious the Applicant's invention.

Noonen et al – Irie invention still fails to offer teaching on using an access code to verify the rights to gain access to a device at a remote location, converting DTMF-tones at a remote site into electrical signals that can be relay to a targeted device (Illustration 1, 2, and 3, item VCR), or on controlling the behavior of a targeted device using instruction received from a remote server.

When combining the teaching of two distinct patents to show obviousness, there must be an underlying reason for joining the two patents. "KROPA V. ROBIE AND MAHLMAN", goes so far as to said that the underlying reason must be so strong that the association of the two patent would be a natural occurrence: an absolute outcome. In "Kropa v. Robie And Mahlman" it reads on patent inherency, being an absolute outcome of an event. In the Applicant's case, someone skilled in the "Art" would definitely associate the two prior art patents (Noonen et al US: 5,761,280 and Irie JP: 410,126,494) and come upon the Applicant's approach to controlling a device at a remote location using a remote

input device, a server, an EA-Router, and a communication network. However, there is no underlining reason to link a telephone that device that uses DTMF-tones mimic a Mouse in allowing its user to navigate websites on the Internet. Irie's patent does teach on using a server to store information, or retrieving information from a server over a communication network. These shortcomings are not overcome by the joining of the two patents. Claim 64, 75, and 85 are allowable.

33. *Claim 112, 114, 115, 118, 119, 122, 125 are rejected under 35 USC 103 (a) as being unpatentable over Noonan et al, and in view of Chang et al (US: 5,974,449).*

Regarding Claim 112, 114, 115, 122, all rejections as stated in claim 56 above apply. Noonan et al failed to teach "authorizing password". However, Chang et al teach on column 9 line 53 – 57, password is entered through telephone keypad by DTMF tones.

It would have been obvious to one skilled at the time the invention was made to modify Noonan et al to have the "authorizing password" as taught by Chang et al such that the modified system of Noonan et al would be able to support the system users conveniences of authorizing by a password.

Noonan et al's patent teaching combine with Chang et al's patent teaching do not contain all of the teaching of the Applicant's invention (see Table 2). This shortcoming would prevent the Applicant's invention from being considered Obvious when one combines both Noonan et al's patent and Chang et al's patent. Therefore claims 112,114,115, 122 are allowable.

Regarding claim 118, rejection as stated in claim 63 and 112 above apply.

In Noonen et al's patent the DTMF-tones never leave the interface device (the invention), unlike the Applicant's invention where the DTMF-tones go to the central computer. Chang patent combined with Noonen et al's patent can not qualify the Applicant's invention as Obvious under USC 103 (a), because the resulting new patent still does not reveals all of the limitations of the Applicant patent application (see table 2). Claim 118 is allowable.

Regarding claim 119, 125, rejections as stated in claim 112 above apply.

Regarding "a remote location identifier". It is inherent that the information must contain the remote location identifier in order to transmit the information.

Chang patent combined with Noonen et al's patent can not qualify the Applicant's invention as Obvious under USC 103 (a), because the resulting new patent still does not reveals all of the limitations of the Applicant patent application (see table 2). Claim 119 and 125 is allowable.

Listing of Claims:

Claim 1 – Claim 55 cancelled

Claim 88 – Claim 90 cancelled

Claim 92 – Claim 93 cancelled

Claim 95 cancelled

Claim 97 – Claim 99 cancelled

Claim 101 - 106 cancelled

Claim 109 cancelled

Claim 110 cancelled

Claim 56 (currently amended): A method for controlling one or more remote targeted devices over a communication network by accessing a central computer, selecting a specific targeted device at a remote location, and entering instruction that will control the future behavior of said targeted device at said remote location, comprising:

- accessing a central computer using a plurality of remote data entry points;
- accessing a central computer using a plurality of remote data entry modes;
- a central computer able to process and store instructions inputted from a plurality of data entry points;
- a central computer able to determine if incoming instructions are authorized to be accepted and forwarded to a specific remote location;
- a central computer able to forward instructions over a communication system to a chosen remote location where said instructions will be relayed to a targeted device;
- a targeted device accepting instructions that will control said device future behavior

Claim 57 (previously amended): The method of claim 56, further comprising:

- a central computer receiving one or more DTMF tones over said communication network; and
- translating said tones into said instructions that can affect the future behavior of a specific device located at a remote location.

Claims 58 (previously amended): The method according to claim 57, further comprising:

a central computer determining what information is encoded within a string of DTMF tones by analyzing order in which DTMF tones are received; and
generating instructional coding that corresponds to the detected sequence of DTMF tones.

Claim 59 (previously amended): A method for controlling the future behavior one or more remotely located appliances at a remote site using instruction communicated over a communication network from a remote input terminal, comprising:

- a) monitoring a communication network linked of a central computer to detect incoming instructions from a remote data entry terminal;
- b) determining whether communication between a central computer and a remote site is established to transmit instructions to a device located at said remote site;
- c) a central computer for storing, processing, and transmitting instructions received from a remote data entry terminal;
- d) a central computer able to transmit the process instructions to a device located at a specific remote site;
- e) a device located at a remote site able to determine whether the incoming instructions are authorized to be used at said specific remote site;
- f) device able to transmitting any received instructions to a targeted appliance; and
- g) controlling the future behavior of the targeted appliances based on said instructions.

Claim 60 (previously amended): The method of claim 59, further comprising:

a server receiving DTMF tones over said communication network from a remote input terminal; and

translating said tones into instructions and information that is directed to a targeted remote site according to input received by the central computer.

Claim 61 (previously amended): The method according to claim 60, further comprising:

a central computer analyzing the position and nature of DTMF tones to decipher the information contained within said DTMF.

Claim 62 (previously amended): The method according to claim 60 wherein the DTMF tones encoding information are transmitted by a central server over a telecommunication network to a site remote to both the server and the remote data entry terminal.

Claim 63 (previously amended): The method according to claim 60 wherein the DTMF tones encoding information are transmitted over the Internet to a central server where information and instructions are extracted and process before being passed on to a remote targeted site where said instructions will affect the future behavior of an appliance.

Claim 64 (previously amended): The method of claim 60, further comprising: a device at the remote site converting said DTMF tones received from the central computer into infrared light signals containing instructions that will control the behavior of the targeted appliance.

Claim 65 (previously amended): The method of claim 60, further comprising: a device at the remote site converting said DTMF tones received from the central computer into audio signals containing instructions that will control the behavior of the targeted appliance.

Claim 66 (previously amended): The method of claim 60, further comprising: the device at the remote site converting said DTMF tones received from the central computer into electrical signals containing instructions that are conveyed by cable to the target appliance, and wherein said instructions will control the future behavior of the targeted appliance.

Claim 67 (previously amended) A system for controlling a specifically targeted appliance at a remote location using information entered from a remote input terminal to a central computer that relay the instructions to a targeted device via a communication network, comprising:

- a means for central computer to monitor for incoming communication from a plurality of remote input terminals that are linked to said computer via a communication network;

- a means for determining whether said incoming communication contains valid instructional information;

- a means for processing, storing, and forwarding said instructional information from the central computer to a device at a targeted remote location;

- a mean for the device at the remote location to determine whether any incoming information over a communication network should be accepted as valid and proper;

a means for the instructional information received by the device at the remote location being conveyed to said targeted appliance; and

controlling said appliance future behavior using the instructions received from the remote input terminal.

Claim 68 (previously amended): The system of claim 67, further comprising:

a means for the central computer to receive DTMF tones encoded instructions over a communication network;

a means for the remotely located device to receive instructional information in the form of DTMF tones over said communication network; and

a means for translating said tones into instructions that will control a targeted appliance future behavior.

Claim 69 (previously amended): The system according to claim 67, further comprising:

a means for analyzing the position of each DTMF tone in a string of DTMF tones to determine what information is encoded in the string ; and

a means for translating said information into instructions that will control a specific appliance at a remote location.

Claim 70 (previously amended): A system for controlling one or more remotely targeted appliance by transmitting instructional information received from a remote input terminal over a communication system, comprising:

a means for a central server to collect information from a plurality of remote input points linked to said server via a communication system;

a means for monitoring a communication system for activity between a server at a central location and a remote input terminal;

a means for determining whether a device at a targeted remote location can detect incoming instructions over the communication system;

a means for determining whether the remote device should allow acceptance of input from the server;

a means for transmitting incoming instructional information to a targeted device when reception of incoming instructions is enabled;

a means for transmitting said instructions from said device to a targeted appliance;
and

a means for controlling said appliance future behavior based on said instructions.

Claim 71 (previously amended): The system of claim 70, further comprising:

a means for said targeted device to receive one or more DTMF tones over said communication system; and

a means for translating any received DTMF tones into instructions that will to control the behavior a targeted appliance located at the remote location.

Claim 72 (previously amended): The system according to claim 71, further comprising:

a means for determining what information is encoded into a sequence of DTMF tones by analyzing order in which the tones are arranged; and means for translating said

information into an access code, targeted appliance location identify, and instructions to be used by the server to in affecting the behavior of said targeted appliance at the remote location.

Claim 73 (previously amended): The system according to claim 71, wherein the DTMF-tones are transmitted via a communication system to a central server from a remote input terminal and from the central server to the targeted device at a remote location.

Claim 74 (previously amended): The system according to claim 71, wherein said DTMF-tones are transmitted via the Internet to a central server from a remote input terminal and from the central server to the targeted device at a remote location.

Claim 75 (currently amended): The system of claim 71, further comprising:

a means for said device to convert said DTMF-tones into ~~infrared light~~ Bluetooth Technology signals containing said instructions that will affect the future behavior of a targeted appliance.

Claim 76 (previously amended): The system of claim 70, further comprising:

a means for said device to ~~converting~~ said DTMF-tones into audio signals containing said instructions that will affect the future behavior of a targeted appliance.

Claim 77 (previously amended): The system of claim 70, further comprising:

a means for said device to convert said DTMF-tones into electrical pulses containing said instructions that will affect the future behavior of a targeted appliance.

Claim 78 (currently amended): A system for controlling a remotely located appliance by relaying instructions from a remote input terminal to a device over a communication system, comprising:

a device with a processor at a remote location configured for monitoring a communication system for incoming activity from a central computer;

a device further configured for determining whether incoming activity in ~~a the~~ form of DTMF-tones over the communication system should be accept by said device;

a central computer having memory for storing incoming instructions from a remote input terminal;

a device at the remote location able to monitor the incoming activity on the communication system for the existence of a signal that enables the central computer forwarded instructions to be accepted as being authorized;

a device at the remote location able to transmit received instructions to said appliance; and said instructions are able to control the future behavior of the appliance.

Claim 79 (previously amended): The system of claim 78, further comprising:

a device containing a ~~a~~ decoder configured for translating DTMF tones into instructions by generating signals that the targeted appliance will recognize as valid incoming instruction code.

Claim 80 (currently amended): The system according to claim 78, wherein a device is further configured for analyzing the position of a DTMF tone in a string of DTMF tones to determine what information is encoded in said string; and

translating the ~~sequence~~ string of DTMF tones into instructions.

Claim 81 (previously amended): A system for controlling one or more remote appliance with instructions communicated over a communication network from a input terminal remote to a central computer, comprising:

a device with a processor located at a remote location configured to monitor a communication network for incoming instructions from a central computer;

a plurality of remote input terminals configured to transmit information to a central computer via a communication network;

a central computer configured to receive information from a plurality of remote input terminals via a communication network;

a central computer with memory configured for processing and storing information received from a remote input terminal;

a central computer configured to determine whether a valid password, target location, and instructions are contained in the information received from a remote input terminal;

a central computer able to send said instructions to a targeted location using a communication network;

a device with a processor located at a remote location able to receive instructions over said network from said central computer and able to transmit the received instructions to a targeted appliance at said remote location; and
control said appliance future behavior with said instructions.

Claim 82 (previously amended): The system of claim 81, further comprising:

a processor within the device at a remote location configured for transmitting received electrical pulses ~~into~~ that containing instructions to the targeted appliance.

Claim 83 (previously amended): The system according to claim 81, wherein information is encoded in electrical pulses transmitted to a central server over a communication network from a remote input terminal.

Claim 84 (previously amended): The system according to claim 82, wherein the said electrical pulses are transmitted via the Internet from a remote input terminal to a central server.

Claim 85 (currently amended): The system of claim 82, wherein the device with a processor is further configured for converting said electrical pulses into Bluetooth Technology ~~infrared-light~~ signals that encode the instructions that originated from the remote input terminal.

Claim 86 (previously amended): The system of claim 81, wherein the device with a

processor is further configured for converting said ~~tones or~~ electrical pulses into audio signals that encode the instructions that originated from the remote input terminal.

Claim 87 (previously amended): The system of claim 81, wherein the device with a processor at the remote location is further configured for converting received instructions into electrical pulses that are communicated to a microprocessor located in a targeted appliance via a cable.

Claim 88 (cancelled): Computer executable software code stored on a computer readable medium, the code for controlling one or more remote device by relaying instructions from an input terminal to said remotely located via a central computer using a communication system, comprising:

- code for monitoring a communication system for activity incoming from a remote location;

- code for determining whether activity on the communication system enables reception any incoming instructions from said remote location;

- code for storing any incoming instructions when activity on the communication system enables reception of incoming instructions at the central computer; and

- code for transmitting any received instructions to a remotely located targeted device;

- and controlling said device with said instructions.

Claim 89 (cancelled): Computer executable software code stored on a computer readable

medium, the code for controlling at least one remote device over a communication system, comprising:

- code for monitoring a communication network for activity incoming from a plurality of remote input terminals;
- code for storing and processing any incoming instructions from a remote input device to a central computer when valid a password is associated with said instructions;
- code for detecting whether the processor located at a remote location is able to receive instructions from a central computer over a communication network;
- code for determining whether information transited over a communication network is authorized to be accepted by a central computer;
- code for determining whether a communication between a central computer and a remote location is contains valid instructions for a device located at said remote location;
- code for transmitting any incoming instructions to said device; and
- code for controlling said device based on said instructions.

Claim 90 (cancelled): A computer readable medium having computer executable software code stored thereon, the code for controlling at least one remote device using a communication system, comprising:

- code for monitoring a communication system for incoming instructions from a remote input terminal;
- code for determining whether incoming instructions are accompanied by a valid authorizing password for controlling a targeted device at a remote location;
- code for enabling reception of any incoming instructions from a central computer;

code for storing said incoming instructions when authorization received over the communication system enables reception of incoming instructions;
and code for transmitting said incoming instructions to said remote device.

Claim 91 (previously amended): A computer readable medium having computer executable software code stored thereon, the code for controlling at least one remote device over a communication system, comprising:

code for enabling a remotely located computer to monitor a communication system for activity;

code for enabling a computer to determine whether an incoming activity from an input terminal contains instructions for controlling a device at a remote location;

code for enabling a remotely located processor to accept incoming instructions from a computer;

code for enabling a remotely located processor to determine whether incoming instructions over a communication system are authorized to be relayed to a device at the a remote location;

code for storing incoming instructions when activity on the communication system enables reception of incoming instructions;

code for enabling a remotely located processor to transmit said incoming instructions to said device; and

code for controlling said device based on said instructions.

Claim 92 (cancelled): A programmed computer for controlling a remote device over a

communication system using a central computer and a remote instruction input terminal,
comprising:

a memory having at least one region for storing computer executable programs
codes;

and a processor for executing the programs codes stored in memory, wherein the
programs codes includes:

code for monitoring a communication system for activity incoming from a remote
instruction input terminal;

code for determining whether activity incoming over the communication system
enables reception of any incoming instructions;

code for storing said incoming instructions when activity over the communication
system enables reception of incoming instructions; and

code for transmitting said incoming instructions to said remote device.

Claim 93 (cancelled): A programmed computer for controlling at least one remote device
over a communication system, comprising:

a memory having at least one region for storing computer executable programs
code; and

a processor for executing the program code stored in memory, wherein the program
code includes: code for monitoring a communication system for activity;

code for determining whether a processor located at a remote location is able to
receive instructions from a central computer over a communication system ;

code for determining whether information transmitted over the communication system enables reception of any incoming instructions;

code for determining whether communication between a central computer and a remote location is to establish access a processor at the remote location that is able to relay instructions to a targeted device;

code for transmitting said instructions from said processor to said targeted device;
and

code for controlling said device based on said instructions.

Claim 94 (currently amended): A method for controlling the future behavior of least one remotely located device via a communication system, comprising:

a server able to monitor a communication system for activity for incoming information containing an access code, remote location id, and instructions;

determining whether the received information should be accepted by the server;

processing and storing said incoming information when said activity on the communication system contains a signal indicating that the incoming information should be process and forwarded to a remote device; and

controlling the behavior of said device with the instructions received from the server.

Claim 95 (cancelled): A method for controlling a remote device over a communication system using a central computer and a plurality of remote instruction input terminals, comprising:

monitoring a communication system for activity; determining whether the communication system is able to relay instructions from a remote terminal to a central computer;

determining whether an incoming call is made from the central computer that is transmitting instruction to a remote location;

determining whether activity on the communication system contains a valid password that will enable reception of any incoming instructions;

storing said incoming instructions when valid authorization password enables reception of incoming instructions;

transmitting said incoming instructions to said device; and

controlling said device based on said instructions.

Claim 96 (currently amended): A system for controlling the future behavior of at least one remotely located appliance, comprising:

a means for a server to monitor a communication system for ~~activity in the form of~~ information from a remote input terminal ;

a means for detecting whether activity on the communication system contains coding authorizing the reception of any incoming information;

a means for directing information stored on a server to a remote location according to direction received from a remote input terminal; and

a means for transmitting information that will affect the future behavior of ~~the a~~ targeted device.

Claim 97 (cancelled): A system for controlling at least one remote device, comprising:

a means for a central computer to monitor a communication system for incoming information related to controlling device located at a remote location ;

a means for the central computer to receive instructions from a plurality remote terminal;

a means for a central computer to store and process the information from a remote terminal and determine whether it contains a valid password authorizing the forwarding of instructions to a targeted device at a remote targeted location;

a means for determining whether the remote location is able to accept said instruction from the central computer;

a means for detecting when the remote location is ready to accept instructions from the a central computer;

a means for transmitting said incoming instructions to said remote targeted device;
and

a means for controlling said remote targeted device based on said instructions.

Claim 98 (cancelled): A system for controlling a remote device, comprising:

a plurality of remote information input terminals that can establish a temporary connection to a central computer;

a central computer configured to accept, process, and store all information collected from a plurality of remote input terminals;

a central computer configured for determining whether information collected from any given remote input terminal contains a valid authorizing password;

a central computer configured for determining whether information collected from a remote input terminal contains instructions for controlling a device located at a remote location;

a central computer configured for transmitting said instructions to a targeted remote location base on information collected from said remote input terminal;

a remote location able to detect and storing incoming instructions from a central computer;

a remote location able to determine whether the collected instructions are valid for that specific location;

a remote location able to transmit said instructions to a targeted device; and
controlling said device based on said instructions.

Claim 99 (cancelled): A system for controlling a device located at a remote location, comprising:

a central computer configured for monitoring a communication system for activity, for determining whether the communication system at a remote location is able to accept incoming instructions from said central computer, for detecting whether activity on the communication system enables reception of any incoming instructions;

a memory configured for storing said incoming instructions when activity on the communication system enables reception of incoming instructions; and a transmitter configured for transmitting said incoming instructions to a targeted device at a remote

location.

Claim 100 (currently amended): The system of claim 82, wherein the processor within the targeted appliance is further configured for processing electrical pulses that encode instructions that were forwarded from a central computer and said instructions will affect ~~the~~ future behavior of said appliance.

Claim 101 (cancelled): Computer executable software code stored on a computer readable medium, the code for controlling one or more remote devices over a communication system, comprising:

code for monitoring a communication system for activity;

code for detecting whether activity on the communication system enables reception of any incoming instructions;

code for storing said incoming instructions when activity on the communication system enables reception of incoming instructions; and

code for transmitting said incoming instructions to a targeted device at a remote location.

Claim 102 (cancelled): Computer executable software code stored on a computer readable medium, the code for controlling at least one remote device by utilizing a communication system to link both a remote input terminal and a remote location to a central computer, comprising:

code for monitoring information inputted into a central computer over a communication system from a remote input terminal;

code for determining whether the communication system has established a connection between a central computer and a targeted remote location;

code for determining whether activity on the communication system enables reception of any incoming instructions;

code for determining whether said activity is intended to establish access to a targeted device at a remote location;

code for storing said incoming instructions on a processor at the remote location when activity on the communication system enables reception of incoming instructions;

code for transmitting said incoming instructions to said device; and

code for controlling said device based on said instructions.

Claim 103 (cancelled) A computer readable medium having computer executable software code stored thereon, the code for controlling at least one remote device over a communication system, comprising:

code for monitoring information inputted from a plurality of remote input terminals over a communication system to a central computer;

code for storing and processing said incoming information into instructions when activity on the communication system enables reception of incoming instructions;

code for determining whether activity on the communication system enables reception of any incoming instructions by a processor at a remote location; and

code for transmitting said instructions by processor to a targeted device at the remote location.

Claim 104 (cancelled): A computer readable medium having computer executable software code stored thereon, the code for controlling one or more remote devices, comprising:

code for monitoring a communication system for activity from a plurality of remote data input terminals;

code for detecting when a communication system has established a connection between a remote information input terminal and a central computer;

code for detecting whether activity on the communication system enables reception of any incoming instructions;

code for determining whether communication between the central computer and a remote location is intended to establish access to a targeted device located at said remote location;

code for determining whether the incoming instructions from the central computer are correctly targeted to a processor at the remote location receiving said instructions;

code for transmitting said incoming instructions to a targeted device at said remote location by a processor; and

code for controlling said device based on said instructions.

Claim 105 (cancelled): A programmed computer for controlling at least one remote device over a communication system, comprising:

a memory having at least one region for storing computer executable program code;
and

a processor for executing the program code stored in memory, wherein the program code includes:

code for monitoring a communication system for information coming from a plurality of remote input terminals;

code for detecting whether activity on the communication system enables reception any incoming instructions at a central computer;

code for processing and storing said incoming instructions when central computer enables reception of any incoming instructions at a targeted remote location; and

code for transmitting said incoming instructions to a targeted device located at said remote location.

Claim 106 (cancelled): A programmed computer for controlling one or more remote devices over a communication system, comprising:

a memory having at least one region for storing computer executable program code; and a processor for executing the program code stored in memory, wherein the program code includes: code for monitoring a communication system for activity;

code for determining whether a remote information input terminal has established a connection to a central computer and said central computer is able to receive incoming information;

code for storing and processing incoming information from a plurality of remote information input terminals;

code for determining whether information from a remote input terminal contains instructions;

code for determining whether a central computer has established contact with a remote location;

code for transmitting instructions from a central computer to a processor located at the targeted remote location;

code for transmitting said incoming instructions to a microprocessor located inside of a targeted device; and

code for controlling said device based on said instructions.

Claims 107 (currently amended): The system according to claim 81, wherein the processor at a remote location is further configured for decoding instructions from a string of DTMF tones by analyzing the order in which ~~the~~ tones are arranged in ~~the~~ a string ; and said processor is further configured for transmitting the decoded instructions to a targeted device .

Claim 108 (currently amended): The system of claim 87, wherein the electrical pulses containing said incoming instructions are transmitted from the device to a microprocessor located in the remote device ~~appliance~~.

Claim 109 (cancelled): A mean for controlling any device located at a remote location using a communication network by transmitting electrical impulse to a microprocessor located in said device comprising:

a mean by which instructions can be collected from a plurality of remotely located terminals and conveyed to a centrally located server using a communication network;

a mean for linking a centrally located server to a plurality of remotely located sites using a communication network;

a mean for storing to memory information collected from remotely located terminals at the centrally located server;

a mean for processing the information collected from a terminal by a centrally located server;

a mean for any of said remote sites to recognize and save to memory information from a centrally located server;

a mean for validating the information from the centrally located server for controlling a targeted device at said remote site;

a mean for transmitting said instructions to said targeted device; and

a mean for controlling said targeted device based on said instructions.

Claim 110 (cancelled): code for controlling at least one remote device connected to a communication network comprising:

code for collecting instructions from a plurality of remotely located terminals and conveyed them to a centrally located server using a communication network;

code for storing to memory information collected from remotely located terminals at the centrally located server;

code for processing the information collected from a remotely located terminal by a centrally located server;

code for linking a centrally located server to a plurality of targeted remote located using a communication network;

code for a remote site to recognize and save to memory instructions from a centrally located server;

code for validating the instruction from the centrally located for controlling a targeted device at a remote location;

code for transmitting said instructions to said targeted device; and

code for controlling said targeted device based on said instructions.

Claim 111 (currently amended): A system for controlling the behavior of an appliance using a communication system to transmit time delayed instructions received from a remote input device, comprising:

a central server containing executable software code stored for monitoring a communication network for activity incoming from a plurality of remote input terminals;

a central server containing code for storing and validating and processing incoming instructions received over a communication network from a remote input device;

a central server containing code for determining whether instructions forwarded from said server over a communication network will be accepted at a remote location;

a device at a remote location able to accept instructions forwarded from said server and transmit said instructions to a targeted appliance; and

affect the behavior of the appliance with said instructions.

Claim 112 (currently amended): A system for affecting the behavior of a remotely located

appliance using a communication system to transmit time delayed instructions received from a remote input device, comprising:

a means for monitoring a communication system for incoming instructions from a remote input terminal;

a means for determining whether incoming instructions are accompanied by a valid authorizing password for controlling a targeted device at a remote location;

a means for enabling reception of any incoming instructions from a central computer;

a means for storing said incoming instructions when authorization received over the communication system enables reception of incoming instructions; and

a means for transmitting said incoming instructions to said remote appliance.

Claim 113 (currently amended): A computer readable medium having computer executable software code stored thereon, the code for controlling at least one remote device over a communication system, comprising:

code for enabling a remotely located computer to monitor a communication system for activity;

code for enabling a computer to determine whether an incoming call from an input terminal contains instructions for controlling a device at a remote location;

code for enabling a remotely located processor to accept incoming instructions from a computer;

code for enabling a remotely located processor to determine whether incoming instructions over a communication system are authorized to be relayed to a device at the a remote location;

code for storing incoming instructions when activity on the communication system enables reception of incoming instructions;

code for enabling a remotely located processor to transmit said incoming instructions to said device; and

code for controlling said device based on said instructions.

Claim 114 (previously added): A remotely located server programmed for controlling a remotely located appliance by transmitting instructions over a communication system, comprising:

a central computer accessible to a plurality of remote input terminals via a communication system;

a central computer able to store and process information received from a plurality of remote input terminals;

a central computer able to response to received information from each remote input terminal by directing output to a specific remote location corresponding to the received information;

a central computer able to response to received information from each remote input terminal by directing an access coded and instructions to a specific remote location corresponding to the received information;

a device at the remote location is able to accept instructions received over a communication network once a valid access code is detected;

a device able to transmit received instructions to an appliance and effect said appliance behavior.

Claim 115 (currently amended): A remote input device able to relay instructions to a targeted device at remote location by transmitting instructions and an access code ~~codes~~ over a communication system to a server and said server re-transmitting the access code and instructions to an appliance at a remote location, comprising:

an input terminal able to transmit instructions and an access code over a communication system to a server for processing;

a server able to monitor a communication system for incoming information from a remote input terminal;

a server able to determine whether ~~the~~ a received input from the input terminal should be accepted, process and stored in memory for future forwarding to a previously added location;

a server able to forward the process information over the communication system to a specific remote location;

a device at the remote location able to check for a valid ~~the~~ access code before accepting the information forwarded from the server to the remote location;

a device able to transmit information received from the server to a targeted appliance at the remote location;

and affect the future behavior of said appliance.

Claim 116 (currently amended): A method for controlling at least one remote device over a communication system, comprising:

monitoring a communication system for activity; detecting whether an outgoing discount call is being made;

determining whether activity on the communication system contains instructions;

storing ~~said~~ incoming instructions when activity on the communication system contains a signal indicating that the incoming instructions should be process and forwarded to a remote device; and

controlling ~~the~~ behavior of a targeted appliance with the instructions the remote device received and relayed to said appliance.

Claim 117 (currently amended): A method for controlling ~~the~~ future behavior of a remotely located appliance by transmitting instructions over a communication system using a central computer and a plurality of remote input terminals, comprising:

monitoring a communication system for activity; determining whether the communication system is able to relay instructions from a remote terminal to a central computer;

determining whether an incoming call is made from the central computer that is transmitting instruction to a remote location;

determining whether activity on the communication system contains a valid password that will enable reception of any incoming instructions;

storing said incoming instructions when valid authorization password enables reception of incoming instructions;

transmitting said incoming instructions to said device; and

controlling said device based on said instructions.

Claim 118 (currently amended): A remote input device able to relay instructions to a targeted device at remote location by transmitting instructions and access codes over the Internet to a server and said server re-transmitting the access code and instructions to an appliance at a remote location, comprising:

an input terminal able to transmit instructions and an access code over a communication system to a server for processing;

a server able to monitor the Internet for incoming information from a remote input terminal;

a server able to determine whether the received input from the input terminal should be accepted, process and stored in memory for future forwarding to a previously added location;

a server able to forward the process information over the Internet to a specific remote location;

a device at the remote location able to check for a valid the access code before accepting the information forwarded from the server to the remote location;

a device able to transmit information received from the server to a targeted appliance at the remote location;

and affect ~~the~~ future behavior of said appliance.

Claim 119 (currently amended): A device able to affect ~~the~~ future behavior a targeted appliance ~~from~~ at a remote location by enabling the reception of instruction from ~~said a~~ remote input terminal ~~location~~, comprising:

a means for a server to monitor a communication system for activity incoming from a remote input terminal ~~location~~;

a means for a server to determine whether activity incoming over a communication system from a remote input terminal contains information should be process and stored;

a means for a server store any incoming information from a remotely located terminal when it contains an access code, a remote location identifier, and instructions;

a means for the server to transit the information over a communication system to a targeted remote location;

a means for the transmitted information to be convey to a selected appliance at the remote location; and

controlling said appliance behavior with said instructions.

Claim 120 (currently amended): A method for controlling ~~the~~ future behavior of a remotely located appliance by transmitting instructions over a communication system using a central computer and a plurality of remote input terminals, comprising:

a means for a server to monitor a communication system for incoming activity containing instructional information and a valid access code;

a means for a server to process and store information received over a communication system;

a means for a server to transmit the process information to a targeted appliance at a remote location; and

affect the appliance behavior with the transmitted information.

Claim 121 (previously added): A system for controlling at least one remote appliance, comprising:

a means for a server to monitor a communication system for incoming information related to controlling an appliance located at a remote location:

a means for monitoring information inputted into a server over a communication system from a remote input terminal;

a means for determining whether the communication system has established a connection between the server and a device at a remotely targeted location;

a means for determining whether the remotely targeted device attached to the communication system will accept incoming information;

a means for a device at the remote location to transmit received information as electrical impulses that are conducted to the targeted appliance via a connecting cable ;and

a controlling said appliance based on said information.

Claim 122 (currently amended) A system for controlling ~~the~~ behavior at least one remotely located appliance using a communication system, comprising:

a means for a server to monitor a communication system for incoming information related to controlling an appliance located at a remote location;

a means for monitoring information inputted into a server over a communication system from a remote input terminal;

a means for determining whether the communication system has established a connection between the server and a device at a remotely targeted location;

a means for determining whether the remotely targeted device attached to the communication system will accept incoming information;

a means for a device at the remote location to transmit received information as ~~infra-red light~~ Bluetooth Technology signals to the targeted appliance; and

a controlling said appliance based on said information.

Claim 123 (currently amended): A system for controlling the future behavior one remotely located appliance using a communication system, comprising:

a means for monitoring a communication system for incoming activity in the form of an access code and instructions from a plurality of remote data input terminals;

a means for the server to determine when to forward ~~action should be take on~~ the information received from a remote input terminal;

a means for the server to establish contact with a targeted remote location over a the communication system;

a means for a server to determine whether a device at ~~communication~~ a remote location is able to accept information;

a means for a device at a remote location to determining whether the incoming information from the server is correctly targeted the remote location;

a means for the device at the remote location to transmit received information to a targeted appliance at said remote location; and

a for said information to control the future behavior of said appliance.

Claims 124 (currently amended): The system according to claim 81, wherein the processor at a remote location is further configured for decoding instructions from a string of DTMF tones by analyzing the order in which the tones are arranged in the string; and said processor is further configured for transmitting the decoded instructions to a targeted device .

Claim 125 (currently amended): a system for controlling a remotely located appliance with instructions forwarded from a remotely located input terminal, comprising the steps of:

a remotely located input terminal able to transmit instructions to a central server over a communication system;

a remotely located server able to monitor a connection to a communication system for incoming information from a remote input terminal;

a server able to determine whether the information communicated over a communication system should be accepted by said server;

a server able to process and store information received over a communication system and later transmit the process information to a remote location;